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May 24, 2012

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
TW-A325
Washington, D.C. 20554

Re: NECA 2012 Second Further Modification of Average Schedule High Cost Loop Support Formula, WC Docket No. 05-337, Connect America Fund, WC Docket No. 10-90

Dear Ms. Dortch:

In compliance with the Wireline Competition Bureau's Order, DA 12-646 (rel. April 25, 2012), attached is NECA's 2012 Second Further Modification of the Average Schedule Universal Service High Cost Loop Support Formula. This filing contains modifications to the formula used to calculate interstate universal service fund high cost loop expense adjustments for average schedule companies, to implement the new benchmarks limiting recovery of capital and operating expenses from the High Cost Fund. These average schedule modifications are scheduled to take effect on July 1, 2012, supplementing the formula already approved by the Commission and in effect at this time, and are scheduled to remain in effect through December 31, 2012. This document has been filed electronically in the above-referenced dockets.

If you have questions regarding the content of these files, please contact Mr. Steve Quinnan, Director, Average Schedules, at 973-884-8099.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard A. Askoff".

Attachment:
2012 Second Further Modification of Average Schedules

Cc: Gary Seigel, WCB
Best Copy

2012 Second Further Modification of the Average Schedule Universal Service
High Cost Loop Support Formula

I. Introduction

On April 25, 2012, the Commission released its order implementing statistical models to limit capital and operating expense reimbursable from the federal High Cost Loop Support (HCLS) fund (Regression Order). That order determined benchmark limits for each rate of return cost company. In addition, it directed NECA to modify the average schedule HCLS formula to reflect the caps derived from cost company data.¹ NECA herein submits these modifications.

In this filing, NECA implements the benchmarks for average schedule companies in several steps. First, because the benchmarks apply separately to capital and operating expenses, NECA apportions the average schedule HCLS formula into two parts, capital expenses and operating expenses. Next, NECA develops benchmark formulas based on the limits determined by the Commission for cost companies. Finally, NECA determines the effect of the benchmarks on each average schedule study area by comparing its CAPEX and OPEX HCLS amounts to the benchmark formula values.

Following are explanations of each of these steps.

It should be noted as a threshold matter that the benchmark models adopted by the Commission serve the purpose of identifying cost companies with the highest ten per cent of costs nationwide, relative to the network and conditions of operation in each study area. As shown in Exhibit 1, average schedule companies have lower HCLS cost per loop than cost companies, especially those with very high cost profiles, who were limited by the Commission's benchmark models.

¹ *Connect America Fund*, WC Docket No. 10-90, *High Cost Universal Service Support*, WC Docket No. 05-337, Order, DA 12-646, note 28 (rel. Apr. 25, 2012) (*Regression Order*).

Exhibit 1
Comparative HCLS Costs of Cost and Average Schedule Companies

Study Areas	Cost Per Loop
Cost Companies Limited by Benchmarks	\$1,089.32
Cost Companies Not Limited by Benchmarks	\$799.99
Average Schedule Companies	\$488.39

II. Data Methods

This filing relies on data from the same statistical sample of average schedule used to support NECA's 2012 Modification of the Average Schedule Universal Service High Cost Loop Support Formula.² In addition, with its *Regression Order*, the Commission released the benchmarks of each cost company study area.³ Data of study areas whose costs exceeded their benchmarks was used to develop benchmark formulas for this average schedule filing, and is included in Appendix A of this filing.

In addition to loop counts, following is a list of data used in this filing taken from NECA's September Filing data. To determine Capital Expense following the method in the Regression Order, the following quantities were summed: Depreciation and Amortization Expense assigned to C&WF Category 1 (AL17), Depreciation and Amortization Expense assigned to COE Category 4.13 (AL18), Return Component for C&WF Category 1 (AL23), and Return Component for COE Category 4.13 (AL24). Operating Expenses were determined by subtracting Capital Expenses from Total Unseparated Costs (AL25). Sample weights were weights included in Appendix B of the September Filing were used for these computations.

To develop the benchmark formulas proposed in this filing, NECA used the following data released by the Commission with the *Regression Order*: Loops, 90% CAPEX CPL Estimate

² National Exchange Carrier Association, Inc., 2012 Modification of the Average Schedule Universal Service High Cost Loop Support Formula, WC Docket No. 05-337.

³ Available at: <http://www.fcc.gov/encyclopedia/rate-return-resources>.

from study areas with CAPEX exceeding the benchmark, and 90% OPEX CPL Estimate from study areas with OPEX exceeding the benchmark.

III. CAPEX Shares of Total Loop Cost

Next, NECA developed shares to be used to apportion the USF cost per loop (CPL) of each average schedule study area between CAPEX and OPEX. Using the average schedule sample data described in Section II, NECA tested the relationship between study area loop size and a study area's actual allocation of CPL to CAPEX. Consistent with expectations, the study found that CAPEX allocation fractions are higher among study areas with more than 5,500 loops, and lower among smaller study areas. This reflects the proportionately higher operating costs and overhead incurred by smaller companies.

Accordingly, NECA developed allocation shares in two categories, stratified by loop size as follows. The two loop size categories were less than 5500 loops, and greater than or equal to 5500 loops.

$$\text{CAPEX Share}_{\text{Loop Size Category}} = \frac{\sum_{\text{Loop Size Category}} (\text{Sample Weight} \times \text{Capital Expense})}{\sum_{\text{Loop Size Category}} (\text{Sample Weight} \times \text{Loop Cost})}$$

$$\text{OPEX Share}_{\text{Loop Size Category}} = 1 - \text{CAPEX Share}_{\text{Loop Size Category}}$$

Results of these calculations are shown in Exhibit 2, to be used with the current average schedule HCLS formula, which is also shown there.

IV. Average Schedule Benchmark Formulas

To determine benchmarks for limiting reimbursable average schedule support, NECA used the cost company data described in Section II. A CAPEX Benchmark Formula was developed using

data from the 68 cost company study areas whose benchmarks caused reductions in their reimbursable CAPEX. Similarly, an OPEX Benchmark formula was developed using data from the 65 cost company study areas whose benchmarks caused reductions in their reimbursable OPEX. Both formulas were developed using ordinary least squares constrained linear regression with outlier weights. Resulting Benchmark Formulas are shown in Exhibit 2.

To determine impacts of these formulas, NECA calculated each average schedule study area's CAPEX per Loop, by multiplying its Cost per Loop (CPL) by its CAPEX share. The study area's CAPEX benchmark was calculated by comparing the CAPEX Benchmark Formula to the study area's CAPEX per loop. If the study area's CAPEX per Loop exceeds its CAPEX benchmark, its CAPEX would be reduced to the benchmark.

The study area's OPEX per Loop was calculated as the difference between its total cost per loop and its CAPEX per loop. By calculations like those described above, the study area's OPEX per loop was tested against the OPEX Benchmark Formula. The CAPEX per Loop, OPEX per Loop, and benchmarks of each study area are shown in Appendix B.⁴

This test confirmed that the average schedule HCLS formula reflects the comparatively low costs of average schedule study areas. No study area was found to have formula cost per loop values exceeding its benchmarks.

V. Conclusion

The proposed benchmark formulas fully reflect the caps applied by the Commission to cost company data, and should be approved by the Commission for use in determining average schedule high cost loop support.

⁴ This appendix shows the latest CPL data for each study area, which in some cases results from quarterly updates.

Exhibit 2
Proposed Average Schedule HCLS Formula with CAPEX and OPEX Benchmarks

Average Schedule HCLS Formula

If number of USF Loops is less than 50,000, and:

If Loops per Exchange is less than 500, then:

$$\text{Cost per Loop} = \$937.326909 - \$0.604669 \times \text{Loops per Exchange}$$

If Loops per Exchange is greater than or equal to 500 but less than 2,000, then:

$$\text{Cost per Loop} = \$682.705322 - \$0.095426 \times \text{Loops per Exchange}$$

If Loops per Exchange is greater than or equal to 2,000 but less than 8,000, then:

$$\text{Cost per Loop} = \$534.314919 - \$0.021231 \times \text{Loops per Exchange}$$

If number of USF loops is greater than or equal to 50,000 or if Loops per Exchange is greater than or equal to 8,000, then:

$$\text{Cost per Loop} = \$364.47$$

CAPEX and OPEX Shares

Loops	CAPEX Share	OPEX Share
< 5500	0.45537	0.54463
≥ 5500	0.48553	0.51447

Benchmark Formulas

Loops	CAPEX per Loop	OPEX per Loop
< 5500	$1114.727578 - 0.128313 \times \text{Loops}$	$1721.897670 - 0.229965 \times \text{Loops}$
≥ 5500	409.006181	457.089655

Appendix A
Cost Companies 2012 High Cost Loop Support Data
CAPEX and OPEX Benchmarks Released by the Commission

Study Area	Loops	CAPEX per loop Benchmark	OPEX per loop Benchmark
1	9599		317.922260
2	4236	121.147492	339.033132
3	1604		644.690582
4	18892		283.947578
5	17966	187.440562	311.188039
6	1812	189.384179	
7	2595	256.474102	
8	1454	260.709306	
9	7172		477.235139
10	9271	465.936456	631.045351
11	21111		466.139901
12	10736	365.285104	
13	12786	442.506908	508.514226
14	10816	1190.081207	
15	2987	316.066692	610.441504
16	2454	465.044856	
17	7736		555.087922
18	25995	442.437817	
19	29761	330.234601	437.656569
20	2711		1096.264756
21	3228		965.515398
22	278	620.958447	
23	777		1123.560560
24	3025	363.858401	
25	15081	278.789893	347.001360
26	22465	371.468286	385.748318
27	974		819.172234
28	1916		754.342486
29	2618		698.866900
30	6123	708.417787	
31	24858		486.451852
32	5296		343.967512

Appendix A
Cost Companies 2012 High Cost Loop Support Data
CAPEX and OPEX Benchmarks Released by the Commission

Study Area	Loops	CAPEX per loop Benchmark	OPEX per loop Benchmark
33	4703	708.757415	
34	3278	829.893662	
35	7172		290.721932
36	3776	246.798595	
37	10548		357.042025
38	3714	684.140830	
39	3702		1045.128410
40	1021		1121.659950
41	1462		1056.919749
42	4934	416.595720	
43	689	590.537667	
44	11502		312.197686
45	15560	315.059284	298.445168
46	1769	905.574658	
47	1489	497.890268	
48	1696	271.811015	
49	2801	324.680887	
50	1921		808.291037
51	918	719.258717	
52	2165	844.580601	
53	744	984.157727	
54	445		1357.256056
55	1118		1186.158862
56	634	583.533004	1109.357325
57	414		1146.532551
58	743		1385.477805
59	3479	1188.474916	
60	8110	393.611198	
61	4418		800.236665
62	2677	1511.726810	1202.682106
63	1370		1167.645617
64	1714		1345.135197

Appendix A
Cost Companies 2012 High Cost Loop Support Data
CAPEX and OPEX Benchmarks Released by the Commission

Study Area	Loops	CAPEX per loop Benchmark	OPEX per loop Benchmark
65	1853	1122.671032	
66	322		2355.891108
67	1319	629.603788	1031.000075
68	8433	711.604066	834.692541
69	2465	795.083744	1165.962022
70	711	564.403603	1306.712054
71	3998	696.007450	1047.822886
72	2865	846.379980	
73	4791	738.662426	
74	6487		927.515050
75	297	1645.708035	2358.508293
76	6839		962.235305
77	3492	702.512656	1156.491718
78	217	1150.650418	2761.117761
79	986	580.793635	
80	6599	694.919832	
81	833	2161.723537	2837.060765
82	12147		585.117915
83	96	5207.150854	6971.823181
84	816		1529.151682
85	521	3809.770919	
86	988		1303.855588
87	561	1560.613705	1359.640612
88	167	1197.342503	2159.773137
89	2314	902.281471	
90	4017	513.012846	608.800284
91	2333		750.175043
92	1183		1809.318790
93	690	1307.661634	
94	4597	454.049042	
95	2675		700.855534
96	5969		692.909746

Appendix A
Cost Companies 2012 High Cost Loop Support Data
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Study Area	Loops	CAPEX per loop Benchmark	OPEX per loop Benchmark
97	20	5806.939678	7833.935014
98	2689	340.063935	
99	3195	353.444424	
100	1110	748.876211	
101	1020	2202.901456	
102	1608	1001.697523	
103	58287	248.853480	
104	2688	341.294895	876.500748
105	46922	327.423556	
106	2334	2262.507253	3535.952365

Appendix B
Average Schedule companies 2012 High Cost Loop Support Data
CAPEX and OPEX Benchmarks For Average Schedule Study Areas

Study Area Code	Loops	Cost Per Loop	CAPEX per Loop	OPEX Per Loop	Formula CAPEX per loop Benchmark	Formula OPEX per loop Benchmark
100005	502	634.80	289.07	345.73	1050.314452	1606.455240
100015	7355	582.41	282.78	299.63	409.006181	457.089655
100019	4943	604.07	275.08	328.99	480.476419	585.180675
100020	4278	546.63	248.92	297.71	565.804564	738.107400
100022	5542	506.45	245.90	260.55	409.006181	457.089655
120042	456	661.60	301.28	360.32	1056.216850	1617.033630
120043	1584	531.55	242.05	289.50	911.479786	1357.633110
140053	829	603.60	274.86	328.74	1008.356101	1531.256685
140064	3406	628.50	286.20	342.30	677.693500	938.636880
150076	995	587.76	267.65	320.11	987.056143	1493.082495
150125	6548	464.80	225.68	239.12	409.006181	457.089655
170145	2138	488.92	222.64	266.28	840.394384	1230.232500
170151	16720	364.47	176.96	187.51	409.006181	457.089655
170156	3998	449.43	204.66	244.77	601.732204	802.497600
170161	224303	364.47	176.96	187.51	409.006181	457.089655
170162	40804	447.69	217.37	230.32	409.006181	457.089655
170165	45873	371.98	180.61	191.37	409.006181	457.089655
170171	1230	565.33	257.44	307.89	956.902588	1439.040720
170175	4239	444.32	202.33	241.99	570.808771	747.076035
170191	10089	562.37	273.05	289.32	409.006181	457.089655
170193	47733	407.63	197.92	209.71	409.006181	457.089655
170195	456	661.60	301.28	360.32	1056.216850	1617.033630
170196	7301	508.55	246.92	261.63	409.006181	457.089655
170197	1299	558.75	254.44	304.31	948.048991	1423.173135
170200	1680	522.39	237.88	284.51	899.161738	1335.556470
170204	2425	566.95	258.17	308.78	803.568553	1164.232545
170210	1226	565.71	257.61	308.10	957.415840	1439.960580
170277	39	913.74	416.09	497.65	1109.723371	1712.929035
190220	172	833.32	379.47	453.85	1092.657742	1682.343690
190225	6524	558.17	271.01	287.16	409.006181	457.089655
190226	25040	401.41	194.90	206.51	409.006181	457.089655

Appendix B
Average Schedule companies 2012 High Cost Loop Support Data
CAPEX and OPEX Benchmarks For Average Schedule Study Areas

Study Area Code	Loops	Cost Per Loop	CAPEX per Loop	OPEX Per Loop	Formula CAPEX per loop Benchmark	Formula OPEX per loop Benchmark
190238	1550	749.88	341.48	408.40	915.842428	1365.451920
190239	783	607.99	276.86	331.13	1014.258499	1541.835075
190243	2620	557.70	253.96	303.74	778.547518	1119.389370
190250	23312	479.33	232.73	246.60	409.006181	457.089655
190253	1917	499.77	227.58	272.19	868.751557	1281.054765
197251	884	598.35	272.47	325.88	1001.298886	1518.608610
200258	1358	553.12	251.88	301.24	940.478524	1409.605200
220324	2777	475.36	216.47	258.89	758.402377	1083.284865
220364	6278	532.89	258.74	274.15	409.006181	457.089655
220380	4635	608.94	277.30	331.64	519.996823	656.009895
220387	14415	381.28	185.12	196.16	409.006181	457.089655
220389	4994	523.82	238.53	285.29	473.932456	573.452460
220395	3766	562.95	256.35	306.60	631.500820	855.849480
230478	1871	504.16	229.58	274.58	874.653955	1291.633155
230491	77585	364.47	176.96	187.51	409.006181	457.089655
230494	1491	540.43	246.10	294.33	923.412895	1379.019855
230495	3706	455.63	207.48	248.15	639.199600	869.647380
230496	8925	561.04	272.40	288.64	409.006181	457.089655
230497	2483	564.19	256.92	307.27	796.126399	1150.894575
230500	858	600.83	273.60	327.23	1004.635024	1524.587700
230501	32560	476.72	231.46	245.26	409.006181	457.089655
230503	12817	488.97	237.41	251.56	409.006181	457.089655
230505	2715	596.34	271.56	324.78	766.357783	1097.542695
230511	24426	482.45	234.24	248.21	409.006181	457.089655
240515	4177	445.63	202.93	242.70	578.764177	761.333865
240516	13331	439.96	213.61	226.35	409.006181	457.089655
240532	418	684.58	311.74	372.84	1061.092744	1625.772300
240535	603	625.16	284.68	340.48	1037.354839	1583.228775
240536	11978	492.24	239.00	253.24	409.006181	457.089655
240541	1929	498.63	227.06	271.57	867.211801	1278.295185
240546	14802	489.41	237.62	251.79	409.006181	457.089655

Appendix B
Average Schedule companies 2012 High Cost Loop Support Data
CAPEX and OPEX Benchmarks For Average Schedule Study Areas

Study Area Code	Loops	Cost Per Loop	CAPEX per Loop	OPEX Per Loop	Formula CAPEX per loop Benchmark	Formula OPEX per loop Benchmark
250283	9656	465.97	226.24	239.73	409.006181	457.089655
250285	800	606.36	276.12	330.24	1012.077178	1537.925670
250301	1933	590.43	268.87	321.56	866.698549	1277.375325
250311	1813	663.41	302.10	361.31	882.096109	1304.971125
250312	6328	399.97	194.20	205.77	409.006181	457.089655
250322	3549	598.06	272.34	325.72	659.344741	905.751885
260398	20087	481.00	233.54	247.46	409.006181	457.089655
260408	5934	493.95	239.83	254.12	409.006181	457.089655
260412	1196	568.58	258.92	309.66	961.265230	1446.859530
260417	1796	511.32	232.84	278.48	884.277430	1308.880530
260419	6881	573.25	278.33	294.92	409.006181	457.089655
270428	974	589.76	268.56	321.20	989.750716	1497.911760
280451	1491	540.43	246.10	294.33	923.412895	1379.019855
280460	4774	568.77	259.00	309.77	502.161316	624.044760
280467	701	615.81	280.42	335.39	1024.780165	1560.692205
287449	595	625.93	285.03	340.90	1038.381343	1585.068495
290553	31137	507.88	246.59	261.29	409.006181	457.089655
290554	11193	486.78	236.35	250.43	409.006181	457.089655
290565	21907	487.80	236.84	250.96	409.006181	457.089655
290570	4935	588.52	268.00	320.52	481.502923	587.020395
290598	1161	761.97	346.98	414.99	965.756185	1454.908305
300585	492	639.83	291.36	348.47	1051.597582	1608.754890
300586	1064	581.17	264.65	316.52	978.202546	1477.214910
300588	902	596.63	271.69	324.94	998.989252	1514.469240
300589	639	621.73	283.12	338.61	1032.735571	1574.950035
300590	880	760.16	346.16	414.00	1001.812138	1519.528470
300591	609	624.59	284.42	340.17	1036.584961	1581.848985
300604	1166	571.44	260.22	311.22	965.114620	1453.758480
300609	2460	482.09	219.53	262.56	799.077598	1156.183770
300614	751	611.04	278.25	332.79	1018.364515	1549.193955
300619	1103	577.45	262.96	314.49	973.198339	1468.246275

Appendix B
Average Schedule companies 2012 High Cost Loop Support Data
CAPEX and OPEX Benchmarks For Average Schedule Study Areas

Study Area Code	Loops	Cost Per Loop	CAPEX per Loop	OPEX Per Loop	Formula CAPEX per loop Benchmark	Formula OPEX per loop Benchmark
300625	1441	545.20	248.27	296.93	929.828545	1390.518105
300633	520	633.08	288.29	344.79	1048.004818	1602.315870
300634	2927	472.17	215.01	257.16	739.155427	1048.790115
300639	1068	580.79	264.48	316.31	977.689294	1476.295050
300645	1041	583.37	265.65	317.72	981.153745	1482.504105
300650	1342	618.67	281.73	336.94	942.531532	1413.284640
300651	319	744.44	339.00	405.44	1073.795731	1648.538835
300654	657	620.01	282.34	337.67	1030.425937	1570.810665
300656	1105	577.26	262.87	314.39	972.941713	1467.786345
300659	6719	462.98	224.79	238.19	409.006181	457.089655
300662	612	624.30	284.29	340.01	1036.200022	1581.159090
300663	260	780.11	355.24	424.87	1081.366198	1662.106770
300664	856	601.02	273.69	327.33	1004.891650	1525.047630
310675	4246	581.36	264.74	316.62	569.910580	745.466280
310676	6241	533.84	259.20	274.64	409.006181	457.089655
310678	1151	572.87	260.87	312.00	967.039315	1457.207955
310688	1053	582.22	265.13	317.09	979.613989	1479.744525
310694	565	628.79	286.33	342.46	1042.230733	1591.967445
310703	1417	690.62	314.49	376.13	932.908057	1396.037265
310725	980	589.19	268.30	320.89	988.980838	1496.531970
310735	910	595.87	271.34	324.53	997.962748	1512.629520
320744	1372	660.99	301.00	359.99	938.682142	1406.385690
320750	1563	533.55	242.96	290.59	914.174359	1362.462375
320751	2021	586.23	266.95	319.28	855.407005	1257.138405
320756	866	600.07	273.26	326.81	1003.608520	1522.747980
320771	416	685.78	312.29	373.49	1061.349370	1626.232230
320777	1900	501.40	228.32	273.08	870.932878	1284.964170
320778	1741	516.57	235.23	281.34	891.334645	1321.528605
320792	2441	482.45	219.70	262.75	801.515545	1160.553105
320796	565	628.79	286.33	342.46	1042.230733	1591.967445
320809	1414	652.53	297.15	355.38	933.292996	1396.727160

Appendix B
Average Schedule companies 2012 High Cost Loop Support Data
CAPEX and OPEX Benchmarks For Average Schedule Study Areas

Study Area Code	Loops	Cost Per Loop	CAPEX per Loop	OPEX Per Loop	Formula CAPEX per loop Benchmark	Formula OPEX per loop Benchmark
320816	331	737.18	335.69	401.49	1072.255975	1645.779255
320826	738	612.28	278.82	333.46	1020.032584	1552.183500
320827	1338	555.03	252.75	302.28	943.044784	1414.204500
320829	3461	460.83	209.85	250.98	670.636285	925.988805
320830	2696	618.39	281.60	336.79	768.795730	1101.912030
320837	710	614.95	280.03	334.92	1023.625348	1558.622520
320839	723	613.71	279.47	334.24	1021.957279	1555.632975
330842	5462	508.93	231.75	277.18	413.881972	465.828840
330843	4392	543.00	247.27	295.73	551.176882	711.891390
330846	3730	504.74	229.85	274.89	636.120088	864.128220
330847	736	612.47	278.90	333.57	1020.289210	1552.643430
330848	176	884.12	402.61	481.51	1092.144490	1681.423830
330851	1549	534.89	243.57	291.32	915.970741	1365.681885
330856	2209	577.26	262.87	314.39	831.284161	1213.904985
330865	1423	546.91	249.05	297.86	932.138179	1394.657475
330868	2196	612.85	279.08	333.77	832.952230	1216.894530
330872	1443	545.01	248.18	296.83	929.571919	1390.058175
330875	1110	576.78	262.65	314.13	972.300148	1466.636520
330879	2464	604.36	275.21	329.15	798.564346	1155.263910
330880	5650	547.87	266.01	281.86	409.006181	457.089655
330881	27157	364.47	176.96	187.51	409.006181	457.089655
330889	1642	604.36	275.21	329.15	904.037632	1344.295140
330896	1456	613.24	279.25	333.99	927.903850	1387.068630
330905	2307	572.58	260.74	311.84	818.709487	1191.368415
330914	4440	597.97	272.30	325.67	545.017858	700.853070
330915	3900	451.51	205.61	245.90	614.306878	825.034170
330925	1957	495.96	225.85	270.11	863.619037	1271.856165
330930	3221	621.25	282.90	338.35	701.431405	981.180405
330938	6052	538.33	261.38	276.95	409.006181	457.089655
330943	2696	554.07	252.31	301.76	768.795730	1101.912030
330944	8352	445.65	216.38	229.27	409.006181	457.089655

Appendix B
Average Schedule companies 2012 High Cost Loop Support Data
CAPEX and OPEX Benchmarks For Average Schedule Study Areas

Study Area Code	Loops	Cost Per Loop	CAPEX per Loop	OPEX Per Loop	Formula CAPEX per loop Benchmark	Formula OPEX per loop Benchmark
330945	2184	578.50	263.43	315.07	834.491986	1219.654110
330946	850	680.34	309.81	370.53	1005.661528	1526.427420
330951	2566	479.84	218.51	261.33	785.476420	1131.807480
330955	7680	371.26	180.26	191.00	409.006181	457.089655
330967	2732	476.31	216.90	259.41	764.176462	1093.633290
330968	6345	399.60	194.02	205.58	409.006181	457.089655
330970	5057	586.23	266.95	319.28	465.848737	558.964665
340976	3552	772.25	351.66	420.59	658.959802	905.061990
340983	994	626.50	285.29	341.21	987.184456	1493.312460
340990	262	778.90	354.69	424.21	1081.109572	1661.646840
340993	410	689.41	313.94	375.47	1062.119248	1627.612020
340998	450	665.23	302.93	362.30	1056.986728	1618.413420
341016	6073	469.84	228.12	241.72	409.006181	457.089655
341017	1071	580.50	264.34	316.16	977.304355	1475.605155
341021	98	878.07	399.85	478.22	1102.152904	1699.361100
341024	1802	781.93	356.07	425.86	883.507552	1307.500740
341029	1074	631.46	287.55	343.91	976.919416	1474.915260
341041	95	879.88	400.67	479.21	1102.537843	1700.050995
341046	144	850.25	387.18	463.07	1096.250506	1688.782710
341050	2431	482.70	219.81	262.89	802.798675	1162.852755
341053	3038	537.75	244.88	292.87	724.912684	1023.264000
341062	487	642.85	292.74	350.11	1052.239147	1609.904715
341075	395	698.48	318.07	380.41	1064.043943	1631.061495
341086	387	703.32	320.27	383.05	1065.070447	1632.901215
341087	568	628.31	286.12	342.19	1041.845794	1591.277550
341092	81	888.35	404.53	483.82	1104.334225	1703.270505
351097	283	766.21	348.91	417.30	1078.414999	1656.817575
351098	296	758.34	345.33	413.01	1076.746930	1653.828030
351101	892	597.59	272.13	325.46	1000.272382	1516.768890
351107	285	765.00	348.36	416.64	1078.158373	1656.357645
351108	122	863.56	393.24	470.32	1099.073392	1693.841940

Appendix B
Average Schedule companies 2012 High Cost Loop Support Data
CAPEX and OPEX Benchmarks For Average Schedule Study Areas

Study Area Code	Loops	Cost Per Loop	CAPEX per Loop	OPEX Per Loop	Formula CAPEX per loop Benchmark	Formula OPEX per loop Benchmark
351112	948	746.25	339.82	406.43	993.086854	1503.890850
351113	1347	554.17	252.35	301.82	941.889967	1412.134815
351114	348	726.90	331.01	395.89	1070.074654	1641.869850
351115	1668	628.98	286.42	342.56	900.701494	1338.316050
351118	1628	605.03	275.51	329.52	905.834014	1347.514650
351119	321	743.23	338.45	404.78	1073.539105	1648.078905
351121	118	865.98	394.34	471.64	1099.586644	1694.761800
351125	4459	540.90	246.31	294.59	542.579911	696.483735
351126	153	890.77	405.63	485.14	1095.095689	1686.713025
351133	745	824.86	375.62	449.24	1019.134393	1550.573745
351136	496	637.41	290.26	347.15	1051.084330	1607.835030
351137	520	780.11	355.24	424.87	1048.004818	1602.315870
351139	1337	735.37	334.87	400.50	943.173097	1414.434465
351141	725	613.52	279.38	334.14	1021.700653	1555.173045
351146	302	754.72	343.68	411.04	1075.977052	1652.448240
351147	739	612.19	278.78	333.41	1019.904271	1551.953535
351149	248	787.37	358.55	428.82	1082.905954	1664.866350
351150	485	644.06	293.29	350.77	1052.495773	1610.364645
351152	1276	621.82	283.16	338.66	951.000190	1428.462330
351153	619	623.64	283.99	339.65	1035.301831	1579.549335
351157	622	749.27	341.20	408.07	1034.916892	1578.859440
351160	852	679.74	309.54	370.20	1005.404902	1525.967490
351162	1107	629.84	286.81	343.03	972.685087	1467.326415
351166	744	611.71	278.56	333.15	1019.262706	1550.803710
351168	1689	791.60	360.47	431.13	898.006921	1333.486785
351171	1904	501.01	228.15	272.86	870.419626	1284.044310
351173	2016	634.61	288.98	345.63	856.048570	1258.288230
351175	358	720.86	328.26	392.60	1068.791524	1639.570200
351176	428	678.53	308.98	369.55	1059.809614	1623.472650
351177	1348	733.55	334.04	399.51	941.761654	1411.904850
351179	285	765.00	348.36	416.64	1078.158373	1656.357645

Appendix B
Average Schedule companies 2012 High Cost Loop Support Data
CAPEX and OPEX Benchmarks For Average Schedule Study Areas

Study Area Code	Loops	Cost Per Loop	CAPEX per Loop	OPEX Per Loop	Formula CAPEX per loop Benchmark	Formula OPEX per loop Benchmark
351188	456	661.60	301.28	360.32	1056.216850	1617.033630
351189	778	702.11	319.72	382.39	1014.900064	1542.984900
351191	425	680.34	309.81	370.53	1060.194553	1624.162545
351199	416	685.78	312.29	373.49	1061.349370	1626.232230
351202	677	618.10	281.47	336.63	1027.859677	1566.211365
351203	683	617.53	281.21	336.32	1027.089799	1564.831575
351205	1189	625.93	285.03	340.90	962.163421	1448.469285
351212	2981	471.03	214.49	256.54	732.226525	1036.372005
351213	285	765.00	348.36	416.64	1078.158373	1656.357645
351217	871	761.97	346.98	414.99	1002.966955	1521.598155
351220	1285	621.35	282.95	338.40	949.845373	1426.392645
351222	676	618.20	281.51	336.69	1027.987990	1566.441330
351225	1570	699.69	318.62	381.07	913.276168	1360.852620
351228	244	789.79	359.65	430.14	1083.419206	1665.786210
351230	1715	628.12	286.03	342.09	894.670783	1327.507695
351232	519	633.18	288.33	344.85	1048.133131	1602.545835
351235	525	632.61	288.07	344.54	1047.363253	1601.166045
351237	1251	748.07	340.65	407.42	954.208015	1434.211455
351238	284	765.60	348.63	416.97	1078.286686	1656.587610
351239	516	781.32	355.79	425.53	1048.518070	1603.235730
351241	699	616.00	280.51	335.49	1025.036791	1561.152135
351242	642	621.44	282.99	338.45	1032.350632	1574.260140
351245	329	738.39	336.24	402.15	1072.512601	1646.239185
351246	644	742.62	338.17	404.45	1032.094006	1573.800210
351247	805	815.79	371.49	444.30	1011.435613	1536.775845
351248	1451	613.43	279.34	334.09	928.545415	1388.218455
351250	483	645.27	293.84	351.43	1052.752399	1610.824575
351251	1771	626.40	285.25	341.15	887.485255	1314.629655
351257	745	611.61	278.51	333.10	1019.134393	1550.573745
351259	2033	761.97	346.98	414.99	853.867249	1254.378825
351260	3925	557.89	254.05	303.84	611.099053	819.285045

Appendix B
Average Schedule companies 2012 High Cost Loop Support Data
CAPEX and OPEX Benchmarks For Average Schedule Study Areas

Study Area Code	Loops	Cost Per Loop	CAPEX per Loop	OPEX Per Loop	Formula CAPEX per loop Benchmark	Formula OPEX per loop Benchmark
351261	1112	769.23	350.29	418.94	972.043522	1466.176590
351263	1431	546.15	248.70	297.45	931.111675	1392.817755
351264	588	759.55	345.88	413.67	1039.279534	1586.678250
351265	194	820.02	373.42	446.60	1089.834856	1677.284460
351266	238	793.42	361.30	432.12	1084.189084	1667.166000
351269	462	657.97	299.62	358.35	1055.446972	1615.653840
351270	265	777.09	353.87	423.22	1080.724633	1660.956945
351271	1719	518.67	236.19	282.48	894.157531	1326.587835
351273	720	614.00	279.60	334.40	1022.342218	1556.322870
351274	1304	558.27	254.22	304.05	947.407426	1422.023310
351275	181	827.88	376.99	450.89	1091.502925	1680.274005
351276	1017	634.13	288.77	345.36	984.233257	1488.023265
351278	718	614.19	279.69	334.50	1022.598844	1556.782800
351280	353	723.88	329.64	394.24	1069.433089	1640.720025
351282	1132	766.21	348.91	417.30	969.477262	1461.577290
351283	405	692.44	315.32	377.12	1062.760813	1628.761845
351285	908	662.81	301.83	360.98	998.219374	1513.089450
351291	1510	708.76	322.75	386.01	920.974948	1374.650520
351292	215	807.32	367.63	439.69	1087.140283	1672.455195
351293	939	653.13	297.42	355.71	994.241671	1505.960535
351294	466	655.55	298.52	357.03	1054.933720	1614.733980
351301	585	819.42	373.14	446.28	1039.664473	1587.368145
351302	1093	578.40	263.39	315.01	974.481469	1470.545925
351306	1227	565.62	257.57	308.05	957.287527	1439.730615
351307	169	835.14	380.30	454.84	1093.042681	1683.033585
351308	382	706.34	321.65	384.69	1065.712012	1634.051040
351309	395	698.48	318.07	380.41	1064.043943	1631.061495
351310	477	648.90	295.49	353.41	1053.522277	1612.204365
351319	2291	706.34	321.65	384.69	820.762495	1195.047855
351320	462	657.97	299.62	358.35	1055.446972	1615.653840
351322	421	682.76	310.91	371.85	1060.707805	1625.082405

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CAPEX and OPEX Benchmarks For Average Schedule Study Areas

Study Area Code	Loops	Cost Per Loop	CAPEX per Loop	OPEX Per Loop	Formula CAPEX per loop Benchmark	Formula OPEX per loop Benchmark
351331	4237	615.33	280.21	335.12	571.065397	747.535965
351334	3333	685.18	312.01	373.17	687.060349	955.424325
351335	306	752.30	342.58	409.72	1075.463800	1651.528380
351336	1406	548.54	249.79	298.75	934.319500	1398.566880
351342	183	826.67	376.44	450.23	1091.246299	1679.814075
351343	537	631.46	287.55	343.91	1045.823497	1598.406465
351344	781	780.11	355.24	424.87	1014.515125	1542.295005
351405	2047	760.76	346.43	414.33	852.070867	1251.159315
351424	901	755.93	344.23	411.70	999.117565	1514.699205
361348	75	891.98	406.18	485.80	1105.104103	1704.650295
361353	1130	574.87	261.78	313.09	969.733888	1462.037220
361356	4139	603.69	274.90	328.79	583.640071	770.072535
361365	267	775.88	353.32	422.56	1080.468007	1660.497015
361372	175	831.51	378.65	452.86	1092.272803	1681.653795
361375	6679	624.78	303.35	321.43	409.006181	457.089655
361381	200	816.39	371.76	444.63	1089.064978	1675.904670
361390	1991	765.60	348.63	416.97	859.256395	1264.037355
361396	2895	613.62	279.43	334.19	743.261443	1056.148995
361401	1763	830.91	378.37	452.54	888.511759	1316.469375
361403	780	608.27	276.99	331.28	1014.643438	1542.524970
361404	889	668.25	304.30	363.95	1000.657321	1517.458785
361405	613	813.97	370.66	443.31	1036.071709	1580.929125
361408	1614	631.37	287.51	343.86	907.630396	1350.734160
361409	9017	364.47	176.96	187.51	409.006181	457.089655
361413	1673	684.58	311.74	372.84	900.059929	1337.166225
361423	768	609.42	277.51	331.91	1016.183194	1545.284550
361424	727	717.23	326.61	390.62	1021.444027	1554.713115
361426	532	776.48	353.59	422.89	1046.465062	1599.556290
361427	21348	364.47	176.96	187.51	409.006181	457.089655
361430	9071	574.49	278.93	295.56	409.006181	457.089655
361431	2284	628.22	286.07	342.15	821.660686	1196.657610

Appendix B
Average Schedule companies 2012 High Cost Loop Support Data
CAPEX and OPEX Benchmarks For Average Schedule Study Areas

Study Area Code	Loops	Cost Per Loop	CAPEX per Loop	OPEX Per Loop	Formula CAPEX per loop Benchmark	Formula OPEX per loop Benchmark
361439	723	791.60	360.47	431.13	1021.957279	1555.632975
361440	1645	688.81	313.67	375.14	903.652693	1343.605245
361443	8963	587.66	285.33	302.33	409.006181	457.089655
361450	3665	624.40	284.34	340.06	644.460433	879.075945
361472	5512	630.13	305.95	324.18	409.006181	457.089655
361474	493	639.23	291.09	348.14	1051.469269	1608.524925
361475	3431	706.95	321.93	385.02	674.485675	932.887755
361476	396	697.88	317.80	380.08	1063.915630	1630.831530
361479	12678	444.59	215.86	228.73	409.006181	457.089655
361487	1166	571.44	260.22	311.22	965.114620	1453.758480
361495	655	739.00	336.52	402.48	1030.682563	1571.270595
361499	2094	489.86	223.07	266.79	846.040156	1240.350960
361500	43	911.33	415.00	496.33	1109.210119	1712.009175
361502	1980	588.23	267.86	320.37	860.667838	1266.566970
361505	5767	743.83	361.15	382.68	409.006181	457.089655
361507	1289	559.70	254.87	304.83	949.332121	1425.472785
361508	831	603.41	274.78	328.63	1008.099475	1530.796755
361512	151	846.02	385.26	460.76	1095.352315	1687.172955
361515	1875	503.78	229.41	274.37	874.140703	1290.713295
361654	1539	633.75	288.59	345.16	917.253871	1367.981535
371530	1297	780.72	355.52	425.20	948.305617	1423.633065
371555	5150	628.12	286.03	342.09	453.915628	537.577920
371563	904	664.02	302.38	361.64	998.732626	1514.009310
371581	1524	609.99	277.77	332.22	919.178566	1371.431010
371590	73	893.19	406.74	486.45	1105.360729	1705.110225
381509	268	856.30	389.94	466.36	1080.339694	1660.267050
381601	51	906.49	412.79	493.70	1108.183615	1710.169455
381614	1337	775.88	353.32	422.56	943.173097	1414.434465
381615	1739	674.30	307.06	367.24	891.591271	1321.988535
381622	810	692.44	315.32	377.12	1010.794048	1535.626020
381625	5408	719.04	327.43	391.61	420.810874	478.246950

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CAPEX and OPEX Benchmarks For Average Schedule Study Areas

Study Area Code	Loops	Cost Per Loop	CAPEX per Loop	OPEX Per Loop	Formula CAPEX per loop Benchmark	Formula OPEX per loop Benchmark
381638	987	738.39	336.24	402.15	988.082647	1494.922215
383303	34199	552.16	268.09	284.07	409.006181	457.089655
391640	1368	661.60	301.28	360.32	939.195394	1407.305550
391649	1360	552.93	251.79	301.14	940.221898	1409.145270
391650	9786	364.47	176.96	187.51	409.006181	457.089655
391653	317	745.65	339.55	406.10	1074.052357	1648.998765
391660	5558	616.38	299.27	317.11	409.006181	457.089655
391664	3515	785.55	357.72	427.83	663.707383	913.570695
391669	1974	738.39	336.24	402.15	861.437716	1267.946760
391671	2213	487.33	221.92	265.41	830.770909	1212.985125
391677	4248	601.59	273.95	327.64	569.653954	745.006350
391682	384	821.23	373.97	447.26	1065.455386	1633.591110
391684	1507	610.75	278.12	332.63	921.359887	1375.340415
391688	978	740.20	337.07	403.13	989.237464	1496.991900
401710	832	685.78	312.29	373.49	1007.971162	1530.566790
401712	6330	607.22	294.82	312.40	409.006181	457.089655
401722	3090	703.92	320.55	383.37	718.240408	1011.305820
421759	2042	731.74	333.22	398.52	852.712432	1252.309140
421876	164	838.16	381.68	456.48	1093.684246	1684.183410
421893	434	674.90	307.33	367.57	1059.039736	1622.092860
421900	1303	740.20	337.07	403.13	947.535739	1422.253275
421932	1295	559.13	254.61	304.52	948.562243	1424.092995
421936	435	674.30	307.06	367.24	1058.911423	1621.862895
421942	1502	634.90	289.12	345.78	922.001452	1376.490240
431968	1561	533.75	243.06	290.69	914.430985	1362.922305
442043	592	758.34	345.33	413.01	1038.766282	1585.758390
442107	6430	397.80	193.14	204.66	409.006181	457.089655
462198	841	602.45	274.34	328.11	1006.816345	1528.497105
462206	68	896.21	408.11	488.10	1106.002294	1706.260050
462210	53	905.28	412.24	493.04	1107.926989	1709.709525
472227	1168	776.48	353.59	422.89	964.857994	1453.298550

Appendix B
Average Schedule companies 2012 High Cost Loop Support Data
CAPEX and OPEX Benchmarks For Average Schedule Study Areas

Study Area Code	Loops	Cost Per Loop	CAPEX per Loop	OPEX Per Loop	Formula CAPEX per loop Benchmark	Formula OPEX per loop Benchmark
482252	2854	546.53	248.88	297.65	748.522276	1065.577560
502279	1494	540.14	245.97	294.17	923.027956	1378.329960
502282	1430	546.25	248.75	297.50	931.239988	1393.047720
502283	1522	634.32	288.85	345.47	919.435192	1371.890940
522430	3827	560.94	255.44	305.50	623.673727	841.821615
532386	1757	515.04	234.54	280.50	889.281637	1317.849165
532396	566	628.69	286.29	342.40	1042.102420	1591.737480
613005	66	897.42	408.66	488.76	1106.258920	1706.719980
613026	189	823.04	374.79	448.25	1090.476421	1678.434285